United Nations A/61/314

General Assembly

Distr.: General
5 September 2006

Original: English

Sixty-first session
Item 67 (a) of the provisional agenda*
Strengthening of the coordination of humanitarian and disaster relief assistance of the United Nations, including special economic assistance: strengthening of the coordination of emergency humanitarian assistance of the United Nations

International cooperation on humanitarian assistance in the field of natural disasters, from relief to development

Report of the Secretary-General

Summary

The present report has been prepared pursuant to General Assembly resolution 60/125 of 15 December 2005, in which the Assembly requested the Secretary-General to continue to improve the international response to natural disasters, and to report thereon to the Assembly at its sixty-first session. The report highlights the key challenges faced by the international community in improving the international response to disasters and in strengthening the capacity of disaster-prone countries in disaster management.

* A/61/150.

06-48861 (E) 280906

I. Introduction

1. In the reporting period (1 June 2005-31 May 2006), 404 disasters associated with natural hazards[1] were recorded in 115 countries, killing more than 93,000 people, affecting almost 157 million people and causing economic damage amounting to $172 billion.[2] While the South Asian earthquake of October 2005, in which more than 73,000 people were reported killed, was by far the most destructive disaster of the period in terms of loss of human lives, the series of floods that struck India and China from May to July 2005 were among the most extensive disasters in terms of people reported affected (between 11 and 20 million people each), as was the typhoon that hit China in September 2005 (more than 19 million people reported affected). The disaster that caused the greatest reported economic damage was Hurricane Katrina, which, in August 2005, generated economic losses amounting to $125 billion in the United States of America.

2. Asians accounted for the overwhelming majority of people reported killed by disasters in the reporting period (more than 87,000 people, or 93.8 per cent of the total number), as well as for the large majority of those reported affected (more than 134 million people, or 85.8 per cent of the total), mainly owing to the floods in India and China. The greatest economic damage was reported in the Americas ($145 billion, or 84.2 per cent of the total), mainly owing to Hurricane Katrina.

3. Pakistan reported the highest loss of human lives during the reporting period, both in absolute terms and relative to its population. China reported the highest number of people affected (almost 99 million, equal to 7.3 per cent of its population). In the Comoros and Malawi, the number of people reported affected, although small in absolute terms, represented more than one third of the population. Similarly, in the Niger, the number of people reported affected represented 29.5 per cent of the population, and in Cuba 22.9 per cent. In terms of economic damage, the United States of America reported the highest absolute figure (almost $142 billion), although that represented only 1.2 per cent of its 2004 GDP. Guyana reported the highest relative economic damage, equal to 21 per cent of its 2004 GDP.

4. Virtually all those reported killed by disasters (96.7 per cent of the total) and the overwhelming majority of those reported affected (86.9 per cent) lived in countries with medium levels of human development. Most economic damage (85.3 per cent of the total) was reported in countries with high levels of human development.

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[1] In the present report, the term "natural disasters" will not be used, as it conveys the assumption that disasters occurring as a result of natural hazards are wholly "natural", and therefore inevitable. It is widely recognized that it is the way in which human society relates to hazards that largely determines the extent to which hazards become disasters. This line of thinking was reflected in the Hyogo Framework for Action adopted at the World Conference on Disaster Reduction, held in January 2005 in Kobe (Hyogo, Japan), as well as in the report of the Secretary-General on international cooperation on humanitarian assistance in the field of natural disasters: from relief to development (A/60/227).

[2] All data in paragraphs 1 to 6 are drawn from the OFDA/CRED International Disaster Database, Université Catholique de Louvain, Brussels (www.em-dat.net). Data on disaster occurrence and impact remain problematic, owing primarily to the lack of standardized collection methodologies and definitions. For a discussion of the methodological challenges of disaster data collection, see D. Guha-Sapir, D. Hargitt and P. Hoyois, *Thirty Years of Natural Disasters, 1974-2003: The Numbers* (Louvain: Presses universitaires de Louvain, 2004).

5. Disasters associated with earthquakes or tsunamis were the most deadly (86 per cent of reported deaths), but floods affected the greatest number of people (51.2 per cent of those reported affected), followed by windstorms (30.7 per cent) and drought and famine (13.1 per cent). Windstorms generated the greatest reported economic damage (86.9 per cent of the total), followed at a distance by floods (10 per cent).

6. The number of disasters, countries affected, people reported killed and people reported affected in the reporting period was not significantly higher than the yearly average for the period 1996-2005. Reported economic damage was significantly higher, however, owing to the impact of Hurricane Katrina.[3]

7. The events during the reporting period are part of a longer-term trend of an increasing incidence and growing severity of disasters. Addressing what has become a vicious cycle of recurrent human and material loss, environmental and social degradation and increased vulnerability requires that the international community work towards a disaster management approach that tackles the interconnectedness of threats and vulnerabilities on a global scale. That approach includes engaging with national Governments in strategic disaster planning and preparedness at the regional, national and local levels, sustaining high levels of assistance for post-disaster recovery and reconstruction, and prioritizing risk reduction as a matter of urgent concern. A study by the ProVention Consortium has identified high-risk areas for a variety of natural hazards, ranging from volcanoes and earthquakes to hydrometeorological events and to drought.[4] Targeting such disaster "hot spots" would be an important place to begin.

8. Disasters cause direct losses to productive capital and stocks and to economic and social infrastructure, as well as indirect losses by disrupting production and the flow of goods and services, leading to loss of earnings. The secondary effects of disasters can also have a significant impact on long-term human and economic development. The impact of disasters varies significantly, however, depending on the level of development of the affected country. In developed countries, even major disasters have a marginal economic impact, which is furthermore largely offset by insurance. In less developed countries, economic losses due to disasters constitute a far higher proportion of the asset base, are not covered by insurance, and are not replaced by humanitarian assistance.

9. While international attention focuses mainly on large-scale disasters that affect large geographic areas and have a major impact on people and infrastructure, most disasters in the world are small in scale. As a rule, these events are dealt with by local authorities and communities, often without support or even recognition from national authorities, let alone international ones. These small-scale disasters, which tend to be recurrent, cumulatively account for very significant losses, and are indicative of ongoing risk accumulation.

10. In both small- and large-scale disasters, local and national actors are the first line of response and provide the bulk of relief assistance. The role of local and national actors is not adequately recognized by the international community, yet it is

[3] Reported economic damage was $172 billion, as compared to a yearly average of $49.6 billion and a standard deviation of $20.2 billion.

[4] Margaret Arnold, Robert S. Chen, Uwe Deichmann, Maxx Dilley and Arthur L. Lerner-Lam, *Natural Disaster Hotspots: A Global Risk Analysis*, ProVention Consortium 2006.

usually significant, particularly when compared to the capabilities of the affected communities.

11. National authorities bear the primary responsibility for responding to disasters on their territory. The role of the international community is to support local, national and regional capacities to prepare for, respond to and recover from disasters, and to strengthen such capacities when they are deficient. While this tenet is well established, many international relief actors have difficulty in envisaging their role as primarily a supporting one. As a result, efforts to strengthen indigenous response capacities remain largely peripheral to the concerns and focus of international responders. Furthermore, international relief assistance all too often bypasses indigenous response mechanisms, thereby undermining them.

II. The year in review

A. Floods

12. Floods took a major toll in Asia during the reporting period. From May to July 2005, some 40 million people were affected by flooding in southern and eastern China. Thanks to recent efforts by the Government to enhance its disaster management capacity, the number of casualties was relatively low. In July 2005, heavy rains caused severe floods and landslides in the Indian State of Maharashtra, while rising waters and strong winds led to widespread destruction in the States of Goa, Madhya Pradesh, Orissa and Gujarat. Some 1,200 people lost their lives, and around 20 million people were reported affected.

13. Central Governments, local authorities and affected communities are always the first respondents to disasters from natural hazards, the United Nations and the international community complementing their efforts according to the scope of the needs. In July 2005, Pakistan experienced extensive flooding in parts of the North-West Frontier Province. Some 15,700 people were displaced, and five refugee camps housing Afghans were affected. The government of the Province allocated funds for the provision of relief support, the national authorities established 17 medical centres, and the Armed Forces of Pakistan assisted the civilian authorities in evacuating the marooned. The United Nations carried out rapid needs assessments. Severe floods and mudflows also occurred in Kyrgyzstan and Tajikistan in June and July 2005, respectively.

14. Central and Latin America were also severely affected by floods. In September 2005, heavy rains caused widespread flooding in six provinces of Costa Rica, affecting 459 villages and leading to the evacuation of some 2,000 people. Although seriously overstretched, the Costa Rican authorities were able to cope, and only limited international assistance was required. In January and February 2006, heavy rains triggered major floods across Bolivia, killing 23 people, affecting 27,500 families and leading to the evacuation of 9,374 families. A United Nations Disaster Assessment and Coordination team was deployed, and the Office for the Coordination of Humanitarian Affairs and the International Federation of Red Cross and Red Crescent Societies allocated emergency cash grants. The 2006 flood season in Bolivia demonstrated how human intervention has modified and increased the levels of disaster risk in the country; virtually all of the country is now exposed to

floods, hailstorms and other threats, and the vulnerability of the rural, poorest segments of the population has increased significantly.

15. In January 2006, flooding in Guyana affected around 3,500 families. A United Nations emergency technical team comprising representatives of UNDP, UNICEF, WHO/PAHO, UNAIDS, UNFPA and UNV coordinated the provision of relief assistance. In February and March 2006, heavy rains provoked flooding and landslides in five coastal provinces of Ecuador, causing 16 deaths and affecting 28,000 families. Inter-agency needs assessments conducted by WFP, UNDP, WHO/PAHO and UNFPA highlighted the need for urgent food assistance owing to the extensive damage to agriculture, as well as public health risks owing to stagnant water. The Ecuadorian Red Cross and WFP distributed food rations in the affected provinces. WHO/PAHO supported the Ministry of Health in monitoring water quality and in disease prevention and control. The Office for the Coordination of Humanitarian Affairs allocated an emergency grant.

16. In May 2006, Suriname experienced its biggest disaster in recent times. Torrential rains flooded the entire south and parts of the central Amazonian lowlands, damaging approximately 30,000 square kilometres of land. Indigenous people were the most severely affected. A United Nations Disaster Assessment and Coordination team was deployed; it carried out needs assessments and, together with the National Coordination Center for Disaster Control, developed a plan for delivering relief items using logistical assets provided by international donors. Coordination between government officials, local actors, non-governmental organizations and international humanitarian actors was fully satisfactory.

17. Several regions of Africa were affected by floods. In August 2005, torrential rains caused substantial flooding in western areas of the Central African Republic, affecting more than 20,000 people and damaging or destroying over 2,500 homes. Heavy rains also caused extensive damage to homes and social infrastructure in the southern region of Sierra Leone. A total of 213 villages were affected and more than 7,000 people displaced. In December 2005 and January 2006, crops, houses and livestock of some 35,000 households in Mozambique and Malawi were affected by flooding. Parts of Botswana, Namibia, South Africa, Zambia and Zimbabwe also experienced localized flooding. National preparedness and response mechanisms were able to adequately attend to the needs of those affected, with support from the United Nations agencies and non-governmental organizations present in the country. In February 2006, heavy rains caused flooding in the region of Tindouf in Algeria, in an area hosting refugee camps. Some 12,000 families were affected. An emergency cell comprising UNHCR, WFP and the Algerian Red Crescent carried out rapid needs assessments.

18. In Europe, in the spring and summer of 2005, Bulgaria, Georgia, Romania, Serbia and Montenegro[5] and the former Yugoslav Republic of Macedonia experienced some of the worst flooding in almost 50 years. The floods led to extensive damage to infrastructure and agriculture, adversely affecting economic growth.

[5] Future reports will contain separate reporting on Serbia and Montenegro. The reporting period mainly includes data collected before Montenegro became an independent State.

B. Windstorms

19. The 2005 hurricane season in the Caribbean was the most active and destructive one on record. It produced not only a record number of named storms (27), but also the highest number of hurricanes (13), the most intense hurricane in recorded history (Wilma) and the most destructive storm on record in terms of reported economic damage (Katrina).

20. Hurricane Katrina struck the United States of America in late August 2005. The United Nations deployed 37 staff members from WFP, UNICEF, WHO/PAHO, UNHCR and the Office for the Coordination of Humanitarian Affairs, and provided technical, liaison and advisory services, particularly with regard to logistics, registration of evacuees, information management, health support and coordination of international assistance. Collaboration with federal and state authorities was excellent. This operation, which was the first ever by the United Nations in the United States, highlighted the need for the Organization to reflect on the nature and scope of its possible engagement in disaster assistance in high-income countries.

21. In October 2005, continuous rains unleashed by tropical storm Stan hit the southern and western coasts of Guatemala, bringing about landslides and flooding in 15 regions, 133 municipalities and 1,156 communities. As a result, 670 people died, 844 were reported missing, 386 were injured and an estimated 474,928 were affected. Some 25,828 housing units were damaged and more than 9,000 destroyed. In El Salvador, intense rains affected almost half of the territory, causing floods and landslides. Some 69 people were killed and more than 70,000 were evacuated. Many homes were destroyed, and family belongings, farmed land and small livestock were lost in large numbers. The impact of the disaster and the international response to it are detailed in the report of the Secretary-General on humanitarian assistance and rehabilitation for El Salvador and Guatemala (A/61/78-E/2006/61).

22. In September 2005, Typhoon Talim and tropical storm Damrey landed in southern China, affecting 19.6 million and 5.7 million people, respectively. Economic losses amounted to more than $2 billion.

C. Other sudden-onset disasters

23. Numerous peat conversion fires, slash-and-burn agriculture fires and wildfires affecting forests and other vegetation on the Indonesian island of Sumatra caused serious haze problems during August and September 2005. In the same period, more than 60 fires were also recorded in Cambodia, the Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam. The fires highlighted the need for greater technical cooperation and coordination at the regional level for cloud seeding over Sumatra. Technical assistance on the use of non-burning techniques for land clearing is also required, along with air-quality monitoring systems and improved remote sensing in fire monitoring.

24. In the Comoros, the Mount Karthala volcano erupted in both April and November 2005, and intermittent seismic activity continued during May 2006. In April 2005, the Government, United Nations agencies and the Red Crescent Society evacuated more than 10,000 islanders. In November 2005, some 245,000 people were affected by the toxic ashes discharged by the eruption, leading to another round of evacuations.

25. The massive earthquake that hit northern Pakistan in October 2005 caused widespread destruction and the death of more than 73,000 people in Pakistan, 1,300 in India, and 4 in Afghanistan. More than 3.3 million people were rendered homeless in Pakistan alone. In Pakistan, the Federal Relief Commission coordinated the relief efforts, in which some 85 bilateral and multilateral donors and 100 non-governmental organizations participated. After a successful relief phase, attention has now shifted to recovery. An integrated early recovery framework, led by UNDP under the early recovery cluster in support of Government efforts, was presented at the international donor conference for rehabilitation and reconstruction in November 2005. An early recovery plan bridging the transition period from relief to reconstruction was prepared by the Earthquake Reconstruction and Rehabilitation Authority and the United Nations in May 2006, with the ultimate goal of ensuring the sustainability of the return of displaced populations. The response to the South Asian earthquake is detailed in the report of the Secretary-General on strengthening emergency relief, rehabilitation, reconstruction and prevention in the aftermath of the South Asian earthquake disaster — Pakistan (A/61/79-E/2006/67).

26. In February 2006, massive landslides hit the province of Southern Leyte in the Philippines, killing 154 people and leading to the evacuation of 3,850 families (18,862 people). The National Disaster Coordinating Council coordinated the rescue and relief operations, as well as the management of the evacuation centres.

27. In March 2006, a series of earthquakes struck the Lorestan Province in the western part of the Islamic Republic of Iran, killing 63 people, injuring 1,418 and affecting 160,000. The damage to the infrastructure was substantial, and several villages were completely destroyed. Two additional earthquakes struck the province in April, affecting 320 villages and partially or completely destroying from 35,000 to 40,000 homes. United Nations inter-agency assessment teams were dispatched to the region, and resource and information centres were set up to ensure information-sharing and coordination among humanitarian agencies and Government partners.

28. In May 2006, an earthquake measuring 5.9 on the Richter scale struck the island of Java in Indonesia, affecting five districts within Yogyakarta Province and six within neighbouring Central Java Province. More than 5,700 people lost their lives, 40,000 were seriously injured, and around 1.5 million were rendered homeless. The earthquake severely damaged infrastructure, particularly housing, in the two worst affected districts, namely, Bantul in Yogyakarta and Klaten in Central Java. Total economic damage was estimated at $3.1 billion. The national response to the earthquake was swift and decisive, thanks to the attention and resources that were already focused on Mount Merapi, a volcano that had become active the previous month, threatening the populations living on its slopes. The national coordinating board for the management of disasters, together with provincial and district authorities, took a leading role in coordinating the relief efforts. The Government did not request international assistance.

29. International humanitarian organizations, which had been already present in Indonesia since the tsunami disaster, were able to draw upon stocks of relief items, and human and material resources, from existing programmes. An earthquake response plan was launched on 2 June 2006 to highlight underfunded emergency needs and to catalyse early recovery efforts. A preliminary environmental assessment was also carried out to identify acute environmental issues arising from the earthquake. The Committee on Disaster Management of the Association of

Southeast Asian Nations coordinated joint emergency response efforts within the framework of the 2005 regional agreement on disaster management and emergency response.

D. Indian Ocean tsunami recovery

30. Eighteen months after the Indian Ocean tsunami, recovery operations continue in all affected countries (India, Indonesia, Maldives, Sri Lanka and Thailand). The Secretary-General's Special Envoy for Tsunami Recovery, President Bill Clinton, and his Office were instrumental in promoting the integration of recovery efforts at the global level and in stressing the need to incorporate risk reduction in recovery. Impact assessments were conducted, with the support of the United Nations system and the World Bank, to guide the recovery and reconstruction process. Schools, highways, harbours and homes are under construction, and livelihood restoration programmes and support to communities in social services are under way. International efforts are detailed in the report of the Secretary-General on strengthening emergency relief, rehabilitation, reconstruction, recovery and prevention in the aftermath of the Indian Ocean tsunami disaster (A/61/87-E/2006/77).

31. In its synthesis report of July 2006, the Tsunami Evaluation Coalition made four main recommendations. First, the international humanitarian community should make a fundamental reorientation from supplying aid to supporting and facilitating communities' own relief and recovery priorities. Second, all actors should strive to increase their disaster response capacities and to improve the linkages and coherence between themselves and other actors in the international disaster response system, including those from the affected countries themselves. Third, the international relief system should establish an accreditation and certification system to distinguish agencies that work to a professional standard in a particular sector. Fourth, all actors should make the current funding system impartial and more efficient, flexible, transparent and better aligned with the principles of good donorship. The Coalition also called upon aid agencies to become more accountable to affected people; support and strengthen local capacities; respect the role and responsibility of affected States; strengthen their own surge capacity; improve international coordination and information management; and strengthen recovery practices and capacities.

E. Slow-onset disasters

32. The food security crises that affected a number of Sahelian countries in 2005 and the Horn of Africa in 2006 highlighted once again the high level of vulnerability of local populations, which stems from a combination of contingent and structural factors. The recurrence of such crises, after decades of development work and in spite of the existence of sophisticated early warning and crisis management mechanisms, calls into question the effectiveness of those mechanisms, and illustrates the regional dimension of the factors underlying acute food crises, with regard to their causes, impact and solutions.

33. In the Sahel, an estimated 4 million children under 5 years of age suffer from acute malnutrition, while 13 million suffer from chronic malnutrition. Even with the

improved harvests predicted for 2006, the vulnerability of the poorest households to food and nutritional insecurity remains high. Coping mechanisms that were used during the 2005 crisis have been exhausted, thereby reducing the capacity of populations to respond to another year of insecurity. The latest studies on malnutrition in Burkina Faso, Chad, Mali, Mauritania and the Niger indicate high levels of acute malnutrition in some areas that exceed the internationally agreed upon emergency thresholds. In addition, in some areas of Mauritania and the Niger, the lean season started earlier than usual.

34. In the Horn of Africa, erratic and insufficient rainfall has led to reduced water, pasture and food availability in Djibouti, Eritrea, Ethiopia, Kenya and Somalia. More than 15 million people are estimated to be at risk, of whom more than 8 million are in need of urgent humanitarian assistance. Pastoral communities, which are among the region's poorest and most vulnerable owing to structural problems and successive shocks, are most at risk. In April 2006, a regional appeal was launched to respond to urgent humanitarian needs; at the same time, the need to address the structural causes of vulnerability to recurrent drought and food insecurity was recognized. While an improved March-to-May rainfall season is expected to temporarily improve food security in drought-affected pastoral communities, conditions are expected to worsen as the dry season (June to September) progresses. In many areas, populations will continue to require support as they remain under threat from livelihood depletion, malnutrition and diseases.

35. The Southern Africa region is emerging from an acute phase of what has become a chronic emergency. Triggered by a prolonged dry spell during the 2005 harvest season, this phase featured a sharp deterioration in the nutritional status of the population, with approximately 12 million people receiving some form of food assistance. The region faces high levels of chronic vulnerability associated with HIV/AIDS, extreme poverty and difficulties in accessing basic services, such as health care. As the region is also prone to such natural hazards as drought, floods and cyclones, the situation can easily deteriorate into a major disaster. Despite the promising crop production estimates for 2006, significant pockets of vulnerability remain, and will require sustained humanitarian attention. Simultaneously, risk reduction measures will need to be intensified.

F. Epidemics

36. An epidemic of cholera which started in mid-February 2006 in 14 of the 18 provinces of Angola caused 43,000 infections and as at 6 June 2006 had claimed 1,650 lives. The case fatality rate is 3.8 per cent, far above the emergency threshold of 1 per cent. Over the past year, cholera outbreaks have also been reported in Malawi, Mozambique, Zambia and Zimbabwe, each with a case fatality rate of more than 1 per cent. Though less severe than in Angola, outbreaks in those countries seem to be ever more frequent, more widespread, more persistent and more deadly.

37. In March 2006, Botswana witnessed an outbreak of acute diarrhoea in 12 districts, resulting in 22,062 cases and 446 deaths. The consumption of contaminated water is thought to have been the cause. The majority of patients were children under 5, the highest prevalence being in the age group of 0 to 6 months. A major concern following the outbreak has been the increase in the number of children affected by severe malnutrition as a result of diarrhoea. Various

international agencies have been providing critical support to help bring the epidemic under control.

38. The highly pathogenic avian influenza virus H5N1 continues to spread; in some countries, it has become endemic. There is growing international recognition of the potential for avian and human influenza threats to undermine development through their impact on animal and human health, as well as on livelihoods of poor people. A shared vision of a coordinated global response has been developed, comprising the following actions: control of highly pathogenic avian influenza in poultry and reduction of the risks that the disease poses for people exposed to it; detection of sustained human to human transmission of highly pathogenic influenza through vastly improved surveillance and readiness to contain it; and, should containment not be successful, mitigation of the impact of the pandemic on human health, society, economic systems and governance.

39. Governments have asked for coordinated and sustained international support to help them to effectively implement avian and human influenza programmes, for which they bear the primary responsibility. Some require technical assistance involving the development and/or implementation of national plans and programmes. Many seek financial support for priority elements of national programmes. In some countries, there is a need for direct assistance in implementing critical actions. The agencies, funds and programmes of the United Nations system are well equipped to provide that assistance, working alongside and in synergy with bilateral donor agencies, international non-governmental organizations, private sector bodies and development banks.

III. Topical issues

A. Strengthening local, national and regional capacities for disaster management

40. Capacity-development has long been recognized as one of the building blocks of effective disaster management and sustainable risk reduction.[6] Local, national and regional stakeholders need to be equipped with skills, knowledge and resources to be able to face the challenges that disaster risks pose in today's complex societies. Capacity-development for disaster risk reduction is a long-term process that requires sustained engagement at the beneficiary level. Many different approaches are currently being pursued, allowing for flexibility when addressing the diverse needs of vulnerable populations. More should be done to strengthen synergies between these approaches, for example by adopting common tools and methodologies, including simplified risk assessment methodologies, and guidelines on how to include disaster risk considerations into development planning, recovery planning and programming tools.

41. Strengthening disaster risk management capacities is not a narrowly technical task; it requires political support and commitment, and careful facilitation of a process involving multiple stakeholders. While political commitment can be generated, it requires maintenance on the part of national and international

[6] See also the report of the Secretary-General on the implementation of the International Strategy for Disaster Reduction (A/61/229).

proponents of disaster risk management. Legal and institutional reforms can easily be undone and, while they are necessary, they may not be sufficient to effect lasting change. Long-term engagement at the intermediate (provincial or departmental) and local (in particular municipal) levels has sometimes proved to be more resilient to political fluctuations than investments at the national level.

42. The capacity-development process does not follow a linear path. Every country and context requires a specific solution adapted to its individual profile of risk, capacities and historical, geographical, political and socio-economic characteristics. To be effective, capacity-strengthening efforts need to reach out to, and be appropriated by, local actors. Alternative and more informal strategies can help to promote disaster risk management among communities, and facilitate a dialogue geared to identifying options to harmonize social and economic requirements with risk reduction objectives. While non-governmental organizations have been working in this field for decades, there is currently a communication gap between these small-scale, scattered projects at the local level and national Governments, and few lessons are being drawn for policymaking and policy planning purposes.

43. Among international actors, United Nations country teams are well placed to identify capacity gaps in disaster-prone countries, define interventions to address them, and build the necessary partnerships for long-term engagement. They also have a key role to play in strengthening synergies between the capacity-development efforts of the various international actors working in a country. The disaster management capacity of United Nations country teams is often weak, however, particularly in areas such as early warning, preparedness and contingency planning, and risk reduction mainstreaming. Efforts to strengthen those areas are currently under way in Latin America and the Caribbean, Central Asia and other regions. They include supporting United Nations country teams in the formulation of contingency plans, establishing emergency technical teams to complement United Nations disaster management teams, and the hiring of national disaster response advisers to support United Nations resident coordinators.

44. To ensure effective and timely international cooperation in disaster response and relief operations, it is of the utmost importance that the existing procedures agreed upon by the General Assembly, the Red Cross and Red Crescent Movement and other relevant humanitarian institutions be kept up-to-date and disseminated. A firm commitment to facilitate international relief implies that adequate procedures are in place, not least within national administrative and legal frameworks. For instance, the international disaster response law project of the International Federation of Red Cross and Red Crescent Societies analyses national legal regimes and undertakes wide-ranging consultations with Governments, intergovernmental organizations, national Red Cross and Red Crescent Societies, non-governmental organizations, the private sector and other stakeholders, with a view to formulating recommendations on how national legislation can facilitate the work of Governments and international responders in order to continue to improve the timeliness and appropriateness of national and international material and technical assistance in disasters.

B. Strengthening the rapid response capacity of the international community

45. The Central Emergency Response Fund was established in December 2005 and launched in March 2006 as a standby emergency fund to respond to sudden-onset disasters and to provide funds for chronically underfunded emergencies. Soon after its launch, approximately $25 million were allocated in response to the drought in the Horn of Africa, to support approximately 45 projects in Djibouti, Eritrea, Ethiopia, Kenya and Somalia. The funds were instrumental in making possible a rapid response to the deteriorating humanitarian situation in the sectors of health, nutrition, water and sanitation, and livelihoods. In addition, on 10 August the Emergency Relief Coordinator allocated $12.8 million to supply water and sanitation, food, health services and agricultural seed and fertilizer to the people affected by drought in Afghanistan.

46. The key avenues for strengthening the rapid response capacity of the international community are promoting the use of a common methodology in the response to sudden-onset emergencies, and expanding the number of countries and organizations participating in international disaster response networks. The main networks are the United Nations Disaster Assessment and Coordination teams, the International Search and Rescue Advisory Group and the International Humanitarian Partnership. In January 2006, an awareness module of the Advisory Group was organized in Tunisia for countries of North and West Africa to encourage them to join that network. While a number of countries and organizations expressing interest in the United Nations Disaster Assessment and Coordination network were invited to send candidates for training, in some cases the operationalization of the required national alert and mobilization system has proved problematic. The Asia-Pacific Humanitarian Partnership continues to develop; the first deployment in support of a United Nations Disaster Assessment and Coordination mission took place in May 2006 during the Yogyakarta earthquake. A support module for the Americas region is under development; the first training activities were conducted in June 2006.

47. The virtual on-site operations coordination centre, an online, real-time information exchange platform for emergency managers, has recently been upgraded, and now directly links to and provides the platform for the Global Disaster Alert and Coordination System. An online United Nations Disaster Assessment and Coordination alert system is currently being developed to allow for faster response to disaster alerts. In November 2005, after years of discussion, the International Search and Rescue Advisory Group established internationally agreed operational standards classifying urban search and rescue teams into light, medium and heavy categories. A process for mutual assessment of the operational capabilities of international urban search and rescue teams has also been established. This will ensure that only responders with sufficient operational capability are invited to respond, and will allow for prioritization in the allocation of scarce resources at disaster sites.

C. Strengthening existing tools

48. The Humanitarian Early Warning Service, an Inter-Agency Standing Committee common tool managed by WFP, is a global platform for early warning information on natural hazards. While this newly established service has already

proved its usefulness and has a wide and established audience, it requires further improvements. In particular, the early warning information should be presented in a more accessible way, flood monitoring should be enhanced, and the service should incorporate relevant information from Inter-Agency Standing Committee stakeholders and strengthen its network of scientific partners.

49. The Central Register of Disaster Management Capacities is an operational tool that supports the international community in its efforts to facilitate the expeditious delivery of humanitarian assistance. While improvements have been made to the overall management of the Register, member States are still not sufficiently active in updating information and in contributing towards its individual directories of expertise.

50. Information and telecommunication technology plays a key role in disaster response. The Tampere Convention on the Provision of Telecommunication Resources for Disaster Mitigation and Relief Operations, which entered into force on 8 January 2005 and has been ratified by 35 States, aims to facilitate the provision of timely and effective telecommunication resources and of rapid, efficient information flows for disaster prevention and response. The Convention has yet to make a significant difference for relief operations, however. Although some success stories do exist, in some cases attempts to use the Convention to facilitate the provision of emergency telecommunications have not succeeded. These problems stem from the fact that many States parties to the Convention have yet to adopt administrative procedures to implement it.

51. Satellite-derived mapping and preliminary damage assessment using remote sensing and image analysis are increasingly being used by United Nations agencies and non-governmental organizations in both emergency response and the recovery and reconstruction phases. In accordance with General Assembly resolution 60/125, a dedicated mechanism should be established for the integration of satellite-derived geographic information and analysis to support rapid damage and needs assessment and facilitate early recovery. The mechanism should be based on existing arrangements between UNOSAT[7] and the Office for the Coordination of Humanitarian Affairs, and should receive additional support from Member States and donors.

52. Military assets can in certain cases play a key role in disaster response, enabling relief workers to gain rapid access to hard-to-reach areas, and can provide a unique technical capability beyond civilian capacity. These assets however are scarce and expensive, and are sometimes used irrespective of whether they actually add value to the relief effort. Military assets should therefore be used as a last resort. Effective disaster response requires improved predictability in the use of military assets and the ability to determine the appropriateness of such assistance. It is therefore proposed that a review of the availability, utilization and comparative costs of military assets be conducted to provide improved guidance on their use and deployment in response to disasters caused by natural hazards.

[7] UNOSAT is a United Nations initiative to provide the humanitarian community with access to satellite imagery and Geographic Information System (GIS) services. UNOSAT is implemented by UNITAR.

D. Human rights in disasters

53. People affected by disasters often encounter unequal access to assistance, discrimination in aid provision, enforced relocation, sexual and gender-based violence, loss of documentation, recruitment of children into fighting forces, unsafe or involuntary return or resettlement, and issues of property restitution. Furthermore, disasters often force people to leave their homes. The protection of and respect for human rights are the responsibility of the State, and such issues should be addressed by both the Government and humanitarian actors following a disaster. To facilitate and guide such activities, in 2005 the Representative of the Secretary-General on the human rights of internally displaced persons was requested by the Special Envoy for Tsunami Recovery and the Deputy Emergency Relief Coordinator to provide practical operational guidance to intergovernmental and non-governmental humanitarian actors. Following extensive consultations within the humanitarian community, the Representative drafted the Operational Guidelines on Human Rights and Natural Disasters, which were adopted by the Inter-Agency Standing Committee in June 2006.

E. Humanitarian accountability in disasters

54. Accountability in disaster response remains a matter of concern, as international aid organizations remain insufficiently accountable to the people they seek to assist. Accountability to beneficiaries means providing relief in a manner that respects the needs, concerns, capacities and disposition of affected people, as well as explaining the meaning of, and reasons for, actions and decisions. Accountability to donors has acquired a much higher profile since the tsunami disaster. Relief agencies and donors are pursuing their efforts to improve accountability through initiatives such as the tsunami expenditure tracking system, the enhancement of the financial tracking service of the Office for the Coordination of Humanitarian Affairs, the UNDP-led donor assistance database, the Good Humanitarian Donorship initiative, the Humanitarian Accountability Partnership, the Sphere Project, the Active Learning Network for Accountability and Performance in Humanitarian Action and Compas Qualité. The impact of these initiatives remains uncertain, however, especially in the absence of verifiable accountability standards.

F. Addressing acute environmental issues in disasters

55. Major disasters associated with natural hazards have an acute, negative environmental impact that can threaten human life and welfare. The effects may include damage to industrial facilities such as chemical plants; acute waste management problems; erosion and landslide risks; and local threats from the displacement of small quantities of dangerous goods. Major disasters may also result in environmental issues that are not life-threatening, but which are nonetheless important and require attention in the early recovery process (for example, damage to ecosystems). This is particularly the case when disasters provoke major human displacement, which in turn results in deforestation, overgrazing, excessive use of water, and other forms of resource-damaging impact. A vital component of effective humanitarian response is therefore ensuring that serious environmental risks to human life and livelihoods are promptly identified,

and steps taken to reduce them. The responsibility for mobilizing and coordinating the international response to environmental emergencies rests with the Office for the Coordination of Humanitarian Affairs and UNEP.

G. Better engagement of external actors

56. The Indian Ocean tsunami brought about a major change in the way the corporate sector views its engagement in disaster response. There is now sustained interest among major corporations in participating in disaster response activities, although so far it appears limited to high-profile disasters. The challenge ahead consists, on the one hand, in integrating this new influential sector into the international disaster response system and, on the other, in exploring ways to tap into private sector capacities, particularly indigenous ones, in smaller disasters. The legal framework of the United Nations is not conducive to public-private partnerships. As a result, the Organization is often unable to make use of outside expertise and capacities offered on a pro bono basis.

57. Since Hurricane Mitch in 1998, the role of the media in disasters has grown significantly. Powerful images of destruction and suffering are swiftly broadcast around the world, putting political pressure on the Government of the affected country, international responders and donors to be seen to take action. A number of detrimental consequences may result, such as high-profile aid interventions that are not based on sound needs assessments, or the proliferation of inexperienced relief actors. Media coverage of disasters varies considerably, with sudden, dramatic disasters such as earthquakes or tsunamis receiving much coverage, while long drawn-out ones such as drought receive almost none. Humanitarian organizations have an ambivalent attitude towards the media: on the one hand, the media's selective interest in disasters runs counter to the humanitarian principle of equality of human suffering; on the other hand, humanitarian agencies need the media to carry their advocacy messages. Humanitarian organizations should step up their engagement with the media in order to improve the quality of coverage of disasters, and encourage the media to cover a wider range of disasters.

H. Post-disaster recovery

58. Despite humanitarian reform and other United Nations efforts, there is still a need to clarify mandates in the transition and recovery phases between the United Nations and other actors, especially international financial institutions. This will help to highlight the comparative advantage and value added of the United Nations in those phases.

59. A post-disaster needs assessment methodology is in preparation. The methodology should include mechanisms that enable greater community participation in assessment, priority-setting and planning. To the extent possible, assessments should be conducted by multi-agency teams, actively involve the Government and affected populations, and rely on effective protocols and mechanisms for timely information-sharing. Increased support is required in developing national capacities for generating baseline data and ensuring continuous data-collection and analysis efforts during recovery, so as to enable a better assessment of requirements.

60. Coordination of recovery efforts remains a challenge, owing to weak Government capacity, particularly at the local level, and the large number of actors to be coordinated. United Nations agencies and non-governmental organizations are now rethinking how best to support the transition to a reconstruction process that is led and owned by the Government. The United Nations should develop a flexible model for supporting recovery coordination that could be quickly deployed in post-disaster settings. Non-United Nations agencies, non-governmental organizations and the International Red Cross and Red Crescent Movement should be better integrated into post-disaster coordination mechanisms led by the United Nations. Such mechanisms should be supported by adequate resources.

61. It is widely agreed that disaster risk reduction must be incorporated into relief and development planning. This tenet has been a central feature of all recent recovery frameworks supported by the United Nations system, including in the tsunami-affected countries, Bolivia, Central America and Pakistan. In some instances however, putting that principle into practice has proved difficult. In the tsunami-affected countries for instance, while there has been notable progress with respect to early warning, it is less clear whether safer houses and infrastructure are being built, livelihoods are becoming more resilient, land use and environmental management practices have improved, and more effective disaster management systems are being established.

62. While humanitarian reform offers the possibility to include early recovery priorities in flash appeals, in small-scale disasters no flash appeals are issued, and countries affected by such disasters continue to face great difficulties in raising resources for recovery purposes. Standard, predictable mechanisms for resource mobilization in the recovery phase are urgently needed.

IV. Recommendations

63. Relevant international humanitarian agencies and organizations should reorient the focus of their disaster response policies and practices from the delivery of goods and services to supporting and strengthening local, national and regional capacities for disaster management.

64. Member States are invited to support the international disaster response law programme of the International Federation of Red Cross and Red Crescent Societies and actively participate in the consultations organized by the programme.

65. Member States are encouraged to actively participate in regional disaster response networks, such as United Nations Disaster Assessment and Coordination teams and the International Search and Rescue Advisory Group.

66. In the light of the insufficient contributions of member States to the Central Register of Disaster Management Capacities, the Office for the Coordination of Humanitarian Affairs should review the usefulness of the Register and propose options to make it more relevant.

67. All Member States are invited to ratify the Tampere Convention and include appropriate standard operating procedures in national legislation to allow unhindered importation and use of emergency equipment and related human resources for relief efforts. Member States should also develop emergency response

telecommunication capacities and establish rosters of telecommunication resources to be made available during emergencies.

68. The Office for the Coordination of Humanitarian Affairs should review the use of military assets in disasters, with a view to ascertaining in which circumstances such assets are most cost-effective, and incorporate guidance and mechanisms for their use into the 1994 Guidelines on the Use of Military Defence Assets in Disaster Relief (Oslo Guidelines).

69. Relevant international humanitarian agencies and organizations should pursue their efforts to strengthen accountability to both beneficiaries and donors, and regularly report on the measures taken in that respect. Agencies involved in initiatives to strengthen accountability should ensure greater coherence among such initiatives.

70. Relevant United Nations agencies and organizations, working with the Office for the Coordination of Humanitarian Affairs and the Global Compact, should continue to establish standby partnerships with the private sector, with a view to augmenting its capacity to respond to disasters and bringing it more effectively into coordination mechanisms.

71. Member States are invited to incorporate disaster risk reduction measures into their relief, reconstruction and development activities. International organizations and donor Governments should actively support national efforts in that regard. I call on relevant United Nations humanitarian agencies and organizations, in collaboration with development partners, to identify ways in which humanitarian action could mainstream risk reduction into response, early recovery and disaster preparedness activities.

Statistical annex

Number of people reported killed by natural disasters:
From 01-06-2005 to 31-05-2006

1. By continent	N	%
Africa	360	0.38
Americas	3,797	4.06
Asia	87,852	93.89
Europe	1,536	1.64
Oceania	26	0.03
Total	**93,571**	**100.00**

2. By UN Human Development Index	N	%
High Human Development	2,111	2.26
Medium Human Development	90,524	96.74
Low Human Development	452	0.48
Country/terr. not classified	484	0.52
Total	**93,571**	**100.00**

3. By disaster type	N	%
Hydrometeorological		
Avalanches/landslides	1,488	1.59
Droughts/famines	27	0.03
Extreme temperatures	2,223	2.38
Floods	5,158	5.51
Forest/scrub fires	40	0.04
Windstorms	4,114	4.40
Subtotal	***13,050***	***13.95***
Geological		
Earthquakes/tsunamis	80,518	86.05
Volcanic eruptions	3	0.00
Subtotal	***80,521***	***86.05***
Total	**93,571**	**100.00**

Source: "EM-DAT: The OFDA/CRED International Disaster Database www.em-dat.net
Université Catholique de Louvain – Brussels – Belgium"

Number of people reported affected by natural disasters:
From 01-06-2005 to 31-05-2006

1. By continent	N	%
Africa	13,679,692	8.72
Americas	8,303,792	5.29
Asia	134,635,698	85.85
Europe	172,446	0.11
Oceania	41,896	0.03
Total	**156,833,524**	**100.00**

2. By UN Human Development Index	N	%
High Human Development	6,804,744	4.34
Medium Human Development	136,410,814	86.98
Low Human Development	13,241,738	8.44
Country/terr. not classified	376,228	0.24
Total	**156,833,524**	**100.00**

3. By disaster type	N	%
Hydrometeorological		
Avalanches/landslides	317,823	0.20
Droughts/famines	20,672,990	13.18
Extreme temperatures	11,816	0.01
Floods	80,306,282	51.20
Forest/scrub fires	4,628	0.00
Windstorms	48,215,317	30.74
Subtotal	***149,528,856***	***95.34***
Geological		
Earthquakes/tsunamis	7,026,257	4.48
Volcanic eruptions	278,411	0.18
Subtotal	***7,304,668***	***4.66***
Total	**156,833,524**	**100.00**

Source: "EM-DAT: The OFDA/CRED International Disaster Database www.em-dat.net
Université Catholique de Louvain – Brussels – Belgium"

Total amount of reported economic damage caused by natural disasters:

From 01-06-2005 to 31-05-2006

Current million US$

1. By continent	Million US$	%
Africa	17	0.01
Americas	144,975	84.26
Asia	22,466	13.06
Europe	4,379	2.55
Oceania	222	0.13
Total	**172,058**	**100.00**

2. By UN Human Development Index	Million US$	%
High Human Development	146,893	85.37
Medium Human Development	25,063	14.57
Low Human Development	0	0.00
Country/terr. not classified	102	0.06
Total	**172,058**	**100.00**

3. By disaster type	Million US$	%
Hydrometeorological		
Avalanches/landslides	2	0.00
Droughts/famines	0	0.00
Extreme temperatures	155	0.09
Floods	17,258	10.03
Forest/scrub fires	0	0.00
Windstorms	149,539	86.91
Subtotal	***166,954***	***97.03***
Geological		
Earthquakes/tsunamis	5,104	2.97
Volcanic eruptions	0	0.00
Subtotal	***5,104***	***2.97***
Total	**172,058**	**100.00**

Source "EM-DAT: The OFDA/CRED International Disaster Database, Université Catholique de Louvain - Brussels - Belgium

People reported killed by natural disasters: 10 most affected countries

(from 01-06-2005 to 31-05-2006)

Country	Total number of people reported killed	Population (Mid-year 2005) (USCB: IDB)	Number of people reported killed per million inhabitants
Pakistan	73,633	162,419,946	453.35
Guatemala	1,583	12,013,907	131.76
Indonesia	6,049	241,973,879	25.00
El Salvador	119	6,704,932	17.75
Latvia	40	2,290,237	17.47
Ukraine	801	46,996,765	17.04
Philippines	1,188	87,857,473	13.52
Grenada	1	89,502	11.17
Haiti	86	8,121,622	10.59
Honduras	61	7,167,902	8.51

Source: "EM-DAT: The OFDA/CRED International Disaster Database www.em-dat.net - Université Catholique de Louvain – Brussels – Belgium"

People reported affected by natural disasters: 10 most affected countries

(from 01-06-2005 to 31-05-2006)

Country	Total number of people reported affected	Population (Mid-year 2005) (USCB: IDB)	Number of people reported killed per 100.000 inhabitants
Comoros	245,000	671,247	36,499
Malawi	4,552,508	12,707,464	35,825
Niger	3,600,000	12,162,856	29,598
Cuba	2,600,000	11,346,670	22,914
Zambia	1,200,000	11,261,795	10,655
Kenya	3,527,700	33,829,590	10,428
China	95,797,576	1,306,313,812	7,333
Guyana	35,000	765,283	4,573
Guatemala	477,854	12,013,907	3,978
Mexico	2,982,571	106,202,903	2,808

Source: "EM-DAT: The OFDA/CRED International Disaster Database www.em-dat.net - Université Catholique de Louvain – Brussels – Belgium"

Economic damage caused by natural disasters: 10 most affected countries

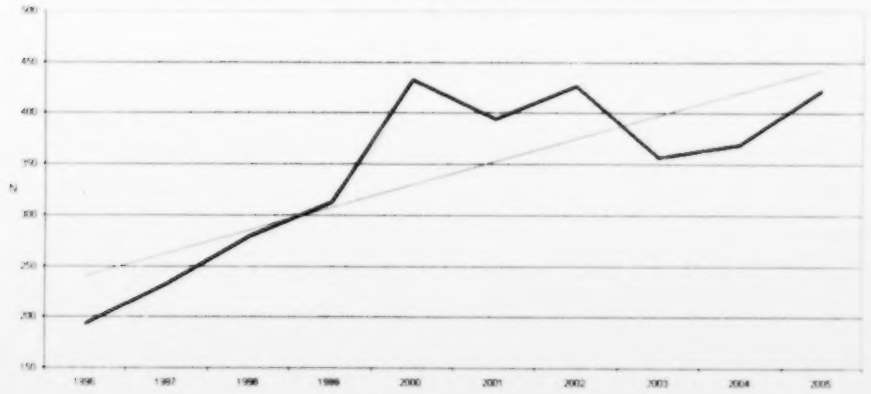
(from 01-06-2005 to 31-05-2006)

Country	Total amount of economic damage reported (current million US$)	GDP 2004 (current million US$) (World Bank)	% GDP 2004
Guyana	165	786	21.00
China	10,813	193,171	5.60
Pakistan	5,000	96,115	5.20
Guatemala	988	27,451	3.60
Tajikistan	50	2,073	2.41

El Salvador	356	15,824	2.25
United States of America	141,634	11,711,830	1.21
Romania	884	73,167	1.21
Bulgaria	257	24,131	1.07
India	5,770	691,163	0.83

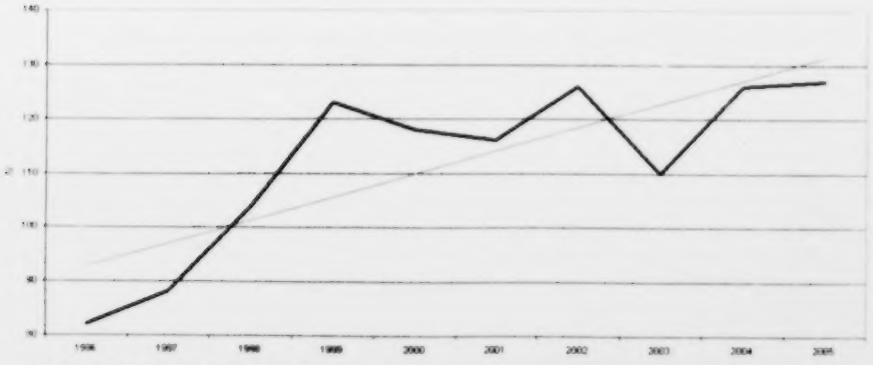
Source: "EM-DAT: The OFDA/CRED International Disaster Database www em-dat net - Université Catholique de Louvain – Brussels – Belgium"

Annual occurrence of natural disasters: 1996-2005
(linear trendline)



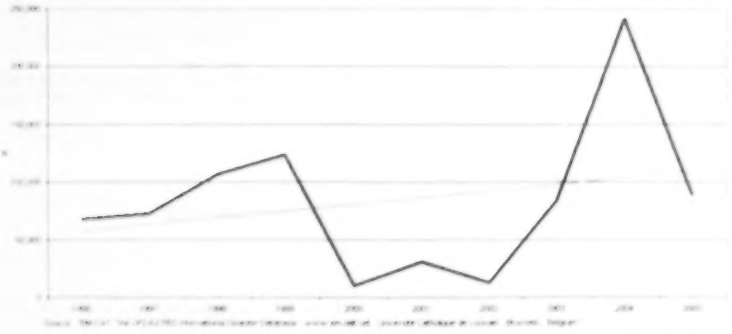
Source: "EM-DAT: The OFDA/CRED International Disaster Database - www.em-dat.net - Université Catholique de Louvain - Brussels - Belgium"

Average number of countries affected by natural disasters: 1996-2005
(linear trendline)

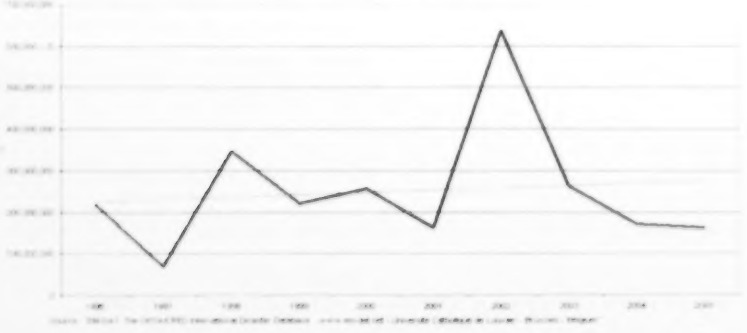


Source: "EM-DAT: The OFDA/CRED International Disaster Database - www.em-dat.net - Université Catholique de Louvain - Brussels - Belgium"

Annual number of people reported killed by natural disasters: 1996-2005
(linear trendline)



Annual number of people reported affected by natural disasters: 1996-2005
(linear trendline)



Total amount of natural disasters reported economic damages: 1996-2005 (current billion US$)
(linear trendline)